

synthetic such as rayon, which has a surface which will facilitate tissue attachment as healing of the wound at the surgical site progresses.

FIG. 7 illustrates still another embodiment of the present invention generally designated by numeral 70, again having a light focusing lens member 25C from which oppositely extend support loops 71 and 72. Loops 71 and 72 are shown as being generally co-planar with the posterior surface of lens 25C. Loops 71 and 72 are formed having a bight portion 73 which carries a pair of magnetic fixation elements 40C which cooperate with elements, positioned on the opposite side of the iris, not shown.

FIGS. 8 and 9 illustrate still another embodiment generally designated by numeral 80 again having a lens body 25D shown having a convex anterior surface 32D and a substantially planar posterior surface 30D. A pair of support loops 81 and 82 oppositely extend from posterior surface 30D, each supporting magnetic fixation element 40D along the bight portion 83 of the loop. A second pair of loops 84 and 85 oppositely extend from the anterior surface of the lens each supporting a trans-iris magnetic element 42D along the bight portion 86 of the loop. Trans-iris magnetic elements 42D and 40D are spaced apart adapted to be placed on either side of the iris to exert a magnetic attraction therebetween. Support of both of the magnetic elements 40D and 42D on lens attached members further ensures that the magnetic elements will not become dislodged during use by the wearer.

FIGS. 10 and 11 illustrate still another form of the present invention generally designated by numeral 90 and, again, including a central light focusing lens 25E having a substantially flat rear surface 30E and a convex anterior surface 32E. Loop 91 is formed by a conductive wire and extends peripherally along the lens body embedded therein and projecting from the lens to form opposite loop 92. Opposite leads 93 and 94 form part of a continuous electrically conductive path of which loops 91 and 92 are a part. A portion of each of loops 91 and 92 is wound about the winding core 95 forming coil 96 as best seen in FIG. 11. Trans-iris fixation member 42E is adapted to be located opposite winding core 95 so that magnetic attraction is exerted across the iris. When an electromotive force is applied to windings 96 at leads 93 and 94, an electromagnetic force will be generated. Leads 93 and 94 can be temporarily connected to a source of electromagnetic force such as an external battery. When tissue growth has been sufficient to adhere to the windings 96 and to the trans-iris magnetic element 42E, the electrical connection at 93 and 94 can be surgically severed and the lens implant will be secured in place.

FIG. 12 illustrates another embodiment 120 again having a light focusing lens 25F from which oppositely extends support loops 121 and 122. Loop 122 supports a single magnetic member 40F while loop 121 support a pair of magnetic members. This embodiment allows the positioning of the implant lens with a greater fixation force in one area of the iris.

In FIG. 13, embodiment 130 includes lens 25G which carries one or more fixation loops 131 having a bight 132 to which is attached cylindrical magnetic element 135. The cylindrical magnetic element 135 may be preferable in some implants. The shape of the magnetic elements may be variously configured and in some instances may be formed in irregular shapes to fit the geometry of the eye and to provide a better fastening surface for tissue attachment.

As pointed out above, the present lens system does not require suturing the lens to the iris thereby eliminating problems of tearing loose of sutures or require special implantation techniques. The lens of the present invention as has been fully described above, can be made in various configurations and combinations of configurations. Whereas the present invention has been described with respect to specific embodiments, it will be understood that various changes, modifications and alterations will become apparent to those skilled in the art and it is intended to encompass such changes, modifications and alterations as fall within the scope of the appended claims.

I claim:

1. An intraocular lens for implant in the human eye in the anterior or posterior chamber in the area of the iris after removal of the lens, said lens comprising:

- (a) a light focusing lens member having a posterior and an anterior surface;
- (b) a support member extending from said lens to a location corresponding to the iris;
- (c) a first fixation member carried on said support member and adapted to be positioned at one of the anterior or posterior sides of the iris; and
- (d) a second fixation member adapted to be positioned at the opposite side of the iris, at least one of said first and second fixation members having magnetic characteristics whereby a mutual trans-iris magnetic attraction exists therebetween to retain the lens in proper condition.

2. The lens of claim 1 wherein said support member comprises a loop having a bight portion and said first fixation member is secured at said bight.

3. The lens of claim 1 comprising at least a pair of oppositely extending support members.

4. The lens of claim 1 further including second support member extending from said lens and wherein said second fixation member is carried on said second support member.

5. The lens of claim 1 wherein one of said first and second fixation members comprises a generally disc-shaped magnet.

6. The lens of claim 1 wherein at least one of said fixation members comprises electromagnetic means.

7. The lens of claim 1 wherein at least one of said fixation members comprises a permanent magnet shape to facilitate tissue growth attachment.

8. The lens of claim 1 wherein support is biologically inert plastic.

9. The lens of claim 1 wherein support is biologically inert wire loop.

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